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January 31, 2022

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Executive Director
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

**Re: Petition of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC for Approval of CPRE Queue Number Proposal, Limited Waiver of Generator Interconnection Procedures, and Request for Expedited Review
Docket No. 2018-202-E**

Fourth Quarter 2021 Generator Interconnection Report & Request to Terminate Quarterly Update Reporting with Respect to Serial Queue Information

Dear Ms. Boyd:

Pursuant to Order No. 2018-803(A) (the "Order") issued in the above-referenced docket, please find attached for filing the fourth quarter 2021 Generator Interconnection Report of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (collectively, the "Companies"). As explained below, the Companies also request that the Commission authorize the Companies to discontinue this reporting requirement because the associated reports are no longer necessary in light of the Companies' recent completion of the Competitive Procurement of Renewable Energy ("CPRE") Program Tranche 2 interconnection study process under the South Carolina Generator Interconnection Procedures ("SC GIP") waivers authorized by the Commission as well as the Companies' recent Commission-authorized transition to the new Cluster Study process under SC GIP Appendix Duke CS.

In the Order, the Commission directed the Companies to "update and file reports with the Commission and ORS similar to those reports required by the NCUC and Public Staff in the CPRE Program Docket Nos. E-2, Sub 1159 and E-7, Sub 1156, and the North Carolina Interconnection Procedures Docket No. E-100, Sub 101." Order at 15. As discussed in previous quarterly report filings, this reporting details and analyzes the Companies' processing of South Carolina Interconnection Customers under then-existing

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SC GIP serial interconnection study process as well as the Companies' parallel efforts to process and study South Carolina Interconnection Customers participating in the North Carolina CPRE Program under the SC GIP waivers and grouping study process approved in the Order for CPRE Tranche 1 as well as in Order No. 2019-817 for CPRE Tranche 2. The Companies have been filing these reports in the above-captioned docket since January 2019 in response to the Order. To date, the Companies have filed 12 quarterly reports addressing the grouping study process for CPRE Tranches 1 and 2.

The Companies believe that this reporting is no longer necessary due to the Companies' recent conclusion of the queue reform transition of the SC GIP, which was approved by this Commission, the North Carolina Utilities Commission, and the Federal Energy Regulatory Commission, as well as the Companies' completion of the CPRE Tranche 1 and CPRE Tranche 2 grouping studies. First, on October 31, 2021, two days after the last quarterly report the transitional eligibility window for the Companies' implementation of its Cluster Study process under Section 3 of the SC GIP Appendix Duke CS closed. Details regarding the Companies' queue reform transition process are included in the attached Q4 report. Second, regarding the CPRE Tranche 2 process, the Companies' have selected winning bids and completed the system impact grouping study process as well as the Facilities Study process for all CPRE Tranche 2 winners. As of January 31, 2021, the Companies have now delivered an Interconnection Agreement to the South Carolina Interconnection Customer selected in CPRE Tranche 2.

Given that the purpose of these quarterly reports was to monitor and ensure fairness between the pre-existing serial interconnection study process and the grouping study process used during CPRE Tranches 1 and 2 in South Carolina, the Companies submit that this purpose has been fully met since the Companies have completed the grouping studies for CPRE Tranche 2 and also recently transitioned to a Cluster Study interconnection queue process. The Companies have also completed both the grouping study process and Facilities Study for the CPRE Tranche 2 winner sited in South Carolina. Accordingly, the Companies respectfully request that the Commission authorize the Companies to discontinue further reporting pursuant to the Order.

Kind regards,

A handwritten signature in blue ink, appearing to read 'Sam Wellborn', with a stylized, cursive script.

Sam Wellborn

Attachment

cc: Parties of Record (via email with attachment)

Generator Interconnection Report Pursuant to Order No. 2018-803(A)
Docket No. 2018-202-E
January 31, 2022

I. Status of the Companies' Queues

RESPONSE:

In past update reports, the Companies have provided a summary of the Companies' serial study queues for the most recent quarter, including information on all Interconnection Requests ("IR") 20kW and greater that are in operation or currently active in the Companies' South Carolina state-jurisdictional interconnection queues at both the transmission and distribution level.

Since receiving Commission, Federal Energy Regulatory Commission ("FERC"), and North Carolina Utilities Commission ("NCUC") approval to implement queue reform and commencing the queue reform transition on August 20, 2021, the Companies are no longer administering a serial interconnection study queue. Currently, the Companies are in the process of (1) completing all remaining serial Facilities Studies for Interconnection Customers participating in the Transitional Serial Process as authorized by Section 3.1 of the South Carolina Generator Interconnection Procedures ("SCGIP") Appendix Duke CS, (2) performing the Phase 1 evaluation of the Transitional Cluster Study as authorized by Section 3.2 of the SCGIP Appendix Duke CS, and (3) accepting Interconnection Requests received during the ongoing Definitive Interconnection System Impact Study Request Window ("DISIS Request Window") which opened on January 1, 2022 as authorized by Section 5.3 of the SCGIP Appendix Duke CS. The Transitional Cluster Study and the Definitive Interconnection System Impact Study are study processes that base queue priority on Interconnection Request clusters instead of determining priority serially based on the date-and time-stamp issuance of individual Interconnection Request queue numbers.

Figure 1

SC Transitional Serial		
Distribution or Transmission	DEC	DEP
Distribution	1	10
Transmission	1	0

Figure 1 represents all SC projects that are participating in the Transitional Serial process as of January 19, 2022.

Figure 2

SC Transitional Cluster Phase 1		
Distribution or Transmission	DEC	DEP
Distribution	0	13
Transmission	9	6

Figure 2 represents all SC projects that are participating in the Phase 1 evaluation of the Transitional Cluster Study process as of January 19, 2022.

II. Reasons for the SC Interconnection Queue Challenges

RESPONSE:

The reasons for the Companies' past SC interconnection queue challenges remain the same as those described in prior quarterly reports. However, due to the Companies' transition to Definitive Interconnection Study Process, the Companies are no longer administering a serial interconnection queueing and study process, which was a major cause of these past challenges.

III. The Companies' Plans to Remedy the Queue Challenges

RESPONSE:

The Companies have received required approvals from the FERC, the NCUC, and this Commission to implement queue reform. Queue reform, and studying IRs in clusters pursuant to the Definitive Interconnection Study Process, will help remedy the queue challenges addressed in recent quarterly reports. As described in Section I of this report, the Companies are no longer administering a serial interconnection queue. The Companies are in the process of (1) completing all remaining serial Facilities Studies for Interconnection Customers participating in the Transitional Serial Process as authorized by Section 3.1 of the South SCGIP Appendix Duke CS, (2) performing the Phase 1 evaluation of the Transitional Cluster Study as authorized by Section 3.2 of the SCGIP Appendix Duke CS, and (3) accepting Interconnection Requests received during the ongoing DISIS Request Window which opened on January 1, 2022 and closes 180 calendar days thereafter as authorized by Section 5.3 of the SCGIP Appendix Duke CS.

IV. Indicate Which Projects Have Been Bid into CPRE Tranches 1 and 2 (including which projects were selected as CPRE winners and which projects bid into CPRE but were not selected)

RESPONSE:

The following provides information related to CPRE Tranche 1 and Tranche 2, for which the Commission granted the requested waivers to the prior serial interconnection study process in Order Nos. 2018-803(A) and 2019-817 issued in this docket.

Please see the August 1, 2019 report filed in this docket that includes the CPRE Tranche 1 winners and projects that were not selected.

As identified in the July 30, 2021 report filed in this docket there was one South Carolina project selected in Tranche 2:

Queue Number	MW AC
2020-03-09 20:02:00	75.0

The following South Carolina projects bid into CPRE Tranche 2 but were not selected:

Queue Number	MW AC
2020-03-09 20:05:00	25.0
2020-03-09 22:01:00	34.0
2020-03-09 22:05:00	58.0
2020-03-09 22:06:00	74.9
2020-03-09 22:07:00	28.0
2020-03-09 22:08:00	75.0
2020-03-09 22:10:00	30.0
2020-03-09 22:11:00	35.0
2020-03-09 22:12:00	74.9
2020-03-09 22:14:00	47.0
2020-03-09 22:15:00	30.0
2020-03-09 22:16:00	35.5
2020-03-09 22:17:00	74.9
2020-03-09 22:18:00	30.0
2020-03-09 22:19:00	35.5
2020-03-09 22:21:00	40.0
2020-03-09 23:02:00	74.9

V. Identify the Intervals for Every Significant Milestone for Every Queued Ahead Non-CPRE Project (if requested by the Office of Regulatory Staff)

RESPONSE:

As noted in Sections I and III above, the Companies are no longer administering a serial interconnection queue. The Companies are in the process of (1) completing all remaining serial Facilities Studies for Interconnection Customers participating in the Transitional Serial Process as authorized by Section 3.1 of the South SCGIP Appendix Duke CS, (2) performing the Phase 1 evaluation of the Transitional Cluster Study as authorized by Section 3.2 of the SCGIP Appendix Duke CS, and (3) accepting Interconnection Requests received during the ongoing DISIS Request Window which opened on January 1, 2022 and closes 180 calendar days thereafter as authorized by Section 5.3 of the SCGIP Appendix Duke CS.

VI. Provide Aggregate Statistics on CPRE and Non-CPRE Projects, including:

- a. The actual allocation of FTEs and person-hours devoted to the processing of CPRE and non-CPRE projects (for the transmission and distribution queues), including on a per-project and per-megawatt basis.

RESPONSE:

The CPRE Tranche 2 procurement and study teams devoted nearly 8,900 person-hours to administering the procurement process and projects that chose to participate in CPRE Tranche 2. No distribution projects were submitted for CPRE Tranche 2. The Companies provided commercial and administrative support, interconnection evaluation services for the stakeholder process, and engineering review. The Accion Group, Inc. administered the procurement and oversaw the Companies' interconnection team's processing of the System Impact Grouping Study. Protection and stability studies were performed by ABB Inc. for 10 non-late stage winning transmission projects, one of which was located in South Carolina. Overall, 38 non-late stage projects (2,062 MW) were evaluated, utilizing resources of approximately 239 person-hours per project and 4.3 hours per megawatt. 18 of these projects were located in South Carolina.

In the CPRE Tranche 2 timeframe, DEC and DEP transmission planners completed 14 non-CPRE Transmission System Impact Studies, for both North and South Carolina. Four of these projects were located in South Carolina. Two of those projects received a System Impact Study Agreement but chose to withdraw before receiving a completed System Impact Study Report. For the South Carolina projects, approximately 167 person-hours per project were expended, approximating .8 person-hours per megawatt.

The Companies note that only limited conclusions can be drawn by comparing the number of person-hours expended on a particular project as compared with another project. Each project has its individual interconnection requirements and study needs. The extent to which Companies resources are expended in evaluating a project is correlated to the complexity of the specific project's interconnection (generator size and location, new infrastructure needed to achieve interconnection).

- b. Information on Interconnection Study Intervals for System Impact Studies and Facilities Studies for CPRE versus non-CPRE projects.

RESPONSE:

The table below provides the average study intervals (calendar days) for transmission-connected Generating Facilities that were studied during the CPRE Tranche 2 timeframe. Three projects selected in CPRE Tranche 2 are still completing Facilities Study.

	Facility Study (days)	System Impact Study (days)
CPRE Tranche 2	181	248
Non-CPRE	166	169

- c. Information on Interconnection Study Backlogs for CPRE versus non-CPRE projects.

RESPONSE:

One South Carolina CPRE Tranche 2 project was in the interconnection study queue as of the August 20, 2021 notice of transition to the Definitive Interconnection Study Process; all other South Carolina CPRE projects had exited the study queue prior to this notice date. This project is subject to the transition procedures and elected to follow the transitional serial path to demonstrating readiness and completing the interconnection study process. Additional detail on the status of the South Carolina CPRE Tranche 2 winner is provided in Section VI.d below.

Similarly, all non-CPRE projects that were in the interconnection study queue as of the August 20, 2021 notice of transition to the Definitive Interconnection Study Process are subject to the Section 3 transition procedures of Duke Appendix CS. As a result of the transition to queue reform, the Companies are now applying the same Commission-approved transitional study procedures to CPRE projects as non-CPRE projects.

- d. The number of CPRE versus non-CPRE projects that achieved each significant interconnection milestone (i.e. system impact study complete, facilities study complete, IA signed, interconnection achieved) during the reporting period.

RESPONSE:

All CPRE Tranche 1 winning projects have completed the study process, signed Interconnection Agreements, and are in the construction phase. The 75.0 MW South Carolina project selected in CPRE Tranche 2 completed System Impact Study in Q2 2021 and remained in the Facilities Study process under the transition procedures as of Q4 2021. Since the last Q3 2021 report was submitted the Companies have issued a Facilities Study Report and Interconnection Agreement to the project, thereby concluding the interconnection study process for the South Carolina project selected in CPRE Tranche 2.

All non-CPRE projects in the queue as of August 20, 2021, had the option to proceed under the transitional study process during the transitional eligibility window that closed October 31, 2021. Figure 1 and Figure 2 in Section I provide the number of SC projects currently participating the transitional study processes.